























By J. J. Smith, Director of Keely Motor . Company.

EC. 20, 1808, visited Keely's shop in company with Mr. Charles S. Hill and Mr. T. Burton Kinraide and saw the

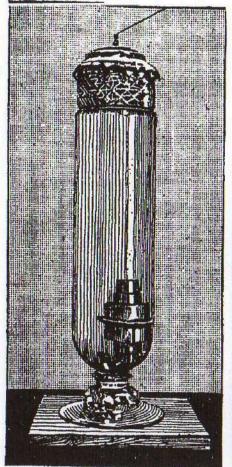
A water motor attached to the wate pipe entering the building, with sundry at tachments. This motor was in an excava tion of a small rear room, a trap door in th floor covered with rubbish concealing it.

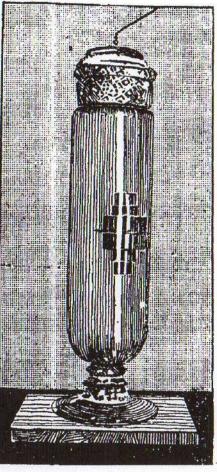
A mechanism was connected with the mo tor to set it in motion and stop it. A small rubber tube was attached to this, with rubber ball on its end, I pressed the ba and started the motor, released the pres and started the motor, released the pressure and the motor stopped. A shaft wa attached to the motor, passing through the wall. A band pulley was attached to this and directly over this at the top of the roor was a similar pulley, with a shaft attached and extending along the ceiling to a poin directly under one of the pillars supporting the center shaft of the engine, which stoo in the middle room on the second floor. A this point was a small pulley and over it were two holes hored through the floor, and were two holes bored through the floor, ap parently for the passage of a round belt The engine on the second floor had been dis mantled by removing the central revolving parts, but the other parts were in the plac so often seen by visitors. The supporting pillar on the left side of the engine was hol low, and on both sides bore marks of fric tion of the belt. The position of the cente shaft of the engine, with a pulley on it, wa readily seen. The box in which the shaf runs was hollow, having room enough to the pulley. The apparent bolts and nut which held the box in place were false. Th above contrivance was such that when th water motor beneath the lower floor wa started the engine on the second floor would be put in motion.

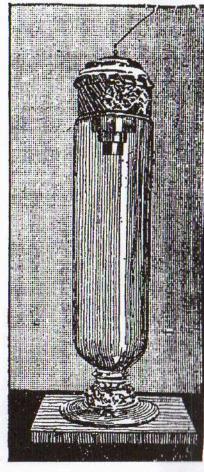
The "binding screw" to which Mr. Keel; always attached the wire from his so called transmitter was hollow and connect ed to a tube running along the inside of the

STOCKHOLDERS' DISCOVERIES. THE KEELY "MIRACLE" OF FLOATING WEIGHTS IN JAR OF WATER.

[Copyright, C. C. Collier, Philadelphia, Pa.]







stationary rim of the engine, and passing down through the engine bed plate and the floor could readily be connected with the water motor. Where the tube passed from the engine rim to the bed plate it was concealed by one of the "resonators" on the outside of the rim. A piece of this resonator had been cut out to allow it to go ove the tube. After being put in place the cut out piece was inserted, effectually concealing the tube. If everything were in place to pressure of air on the "binding screw" of the engine would start the water motor, and that in turn would revolve the engine at slow speed. The small tube attached to rin of engine could not easily be told from the numbers of wires running close to it. The shaft pulleys and tubes at the celling of lower room were concealed by a false celling, easily removed.

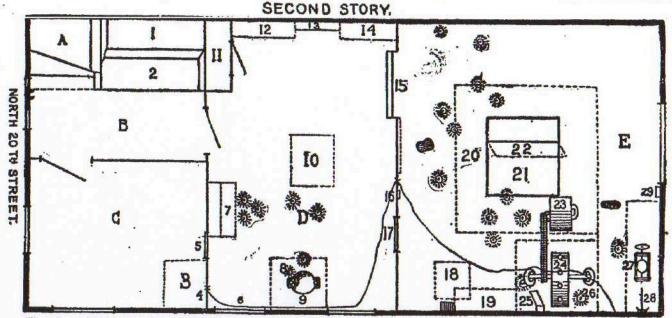
Globe Motor in Front Rooms.—This has been opened and taken apart. Saw a strong spring with gearing, which could be fitted into the globe, also a number of diaphragms some flexible and in order, others hard and not easily moved. It was evident these has been, in some way, used to operate the globe motor.

Compass with match instead of a needle I examined this and found a false betton which concealed a piece of iron like a needle On revolving this the "match needle would revolve.

The disintegrator and other fine pieces o machinery, sensitized disks, wires, etc., had been placed in a safe deposit vault for safe keeping, and I did not see any of these or Dec. 20.

Notwithstanding all this evidence of fraud both Mr. Hill and Mr. Kinraide were of the opinion that Mr. Keely had really discovered some great principle which could be worked

SECOND STORY DIAGRAM, SHOWING POSITIONS OF MACHINERY



The stars show some rupper outd; scattered about in the flooring. A. Stairway from lower floor. B. Hallway. C. Front room. D. Middle room. E. Rear room. 1. False shelf. 2. False desk. 3. False table. 4. Entrance to M. S. wire. 5. Port hole. 6. M. D. wire. 7. Writing desk. 8. Table. 9. Experimental engine. 10. Trap door. 11. Closet. 12. Shelf. 13. Chimney. 14. Shelf. 15. Two steps up to E. 16. Post for guard rall. 17. Port hole. 18. Trap door. 10. Shelf. 20. Skylight. 21. Trap door. 22. Lid to 21. 23. Accumulator. 24. First circuit engine. 25. Brake. 26. Hollow pedestal. 27. Musical sphere. 28. Piston plate.

out by the use of the machines in the safvaults, and that in order to relieve the pres sure on him by the stockholders and other demanding exhibitions he worked these ap pliances and methods to satisfy them, and pliances and methods to satisfy them, and to leave him free, as much as possible, to perfect his great discovery. This was strengthened by the fact that Mr. Kinraid had himself made some experiments in him own laboratory in the same direction, and had succeeded in obtaining rotary motion on the compass needle from vibrations. In asmuch as Mr. Keely had called Mr. Kinraide to his deathbed, and declared that he would be able to carry on his work to com raids to his deathbed, and declared that he would be able to carry on his work to completion, and further charged him to protec Mrs. Keely's interests. I, do not hesitate the recommend to the stockholders the adoption of Mr. Hill's proposition as being for the best interests of the stockholders.

Dec. 28, 1808. In response to a telegration Mr. Hill I visited Philadelphia and wenter immediately to Keely's shop. The evidence of fraud I saw on the 20th inst. had been mostly removed, and nearly everything was ready for shipment to Boston.

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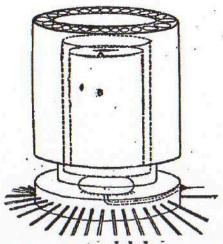
Some of my examinations there had to be made hastily, as Mr. Rudolph and his workmen were there, and President Ackerman soon appeared. It was not desirable at this time to make any explanations. The device the correlates the models covered to the state of the second state. for operating the wooden compass and the disintegrator itself were examined with care at the Hotel Stratford. Some of the facts l ascertained are as follows:

Transmitter-Those shown to investi-Transmitter—Those shown to investi-gators contained a disk surrounded by wire pieces of different lengths, and some other simple constructions, said to operate on be-ing moved by a screw from the outside to a position "in harmony" with a disk of sim-lar construction screwed on the outside of the globe. The real transmitter was exactly similar in external appearance, but contained a simple diaphragm, which, being pressed by the screw from the outside, produced an air pressure which would be transmitted by a tube running to the machine to

In the case of the engine, the attachment was made by a so-called "wire," but this was really a minute tube. My description of Dec. 20 of the water motor, shafting, tubing, belting, etc., shows how this manhine was really operated.

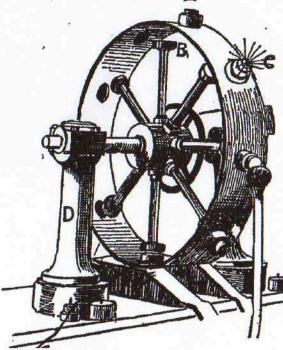
The Globe Motor contained a heavy solled spring, with gearing. A diaphragm connected with it pressed against the shell, connected with it pressed against the shell, acting as a brake. The spring having been reviously wound up was inoperative to move the globe until the brake was released. This was done by screwing up the diaphragm in the transmitter, and the globe would revolve. A small tube was used to connect he transmitter and the brake in the motor. The floating weight which would rise to a far of water. A heavy nice of hears

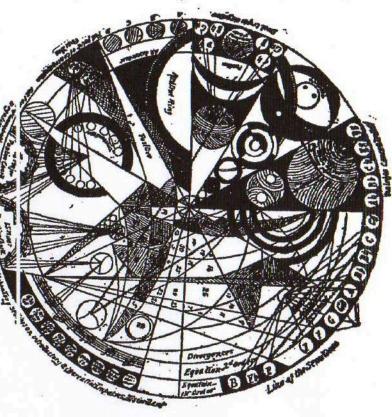
n a jar of water. A heavy piece of brass vas shown and allowed to be examined by isitors. The real one was an exact imita-ion in size and appearance, but really a ight, hollow box with an opening in it, so ar-



Test medium for showing marvelous revolution of compass. Dotted lines show internal arrangement when diaphragm is inflated.

THE KEELY MOTOR.





Mr. Keely's Chart Showing Condition Governing Discordants and All Their Combinations.





The floating weight which would rise n a jar of water. A heavy piece of brass vas shown and allowed to be examined by risitors. The real one was an exact imita-ion in size and appearance, but really a ight, hollow box with an opening in it, so aranged that when an air pressure was exerted on top of the water in the jar the water vould be forced into the box, and, being nade heavier than the water, it would sink. When the pressure was taken off the box rould rise or float. The cover of the jar ontained a concealed diaphragm. A consection between this and the diaphragm in he transmitter by a small tube explains the

The Connecting "Wire"—I tested one of hese by submerging one end in water and pplying my mouth to the other end. Blowng in; a quantity of bubbles came through he water, demonstrating the fact of the so-

alled "wire" being a tube.

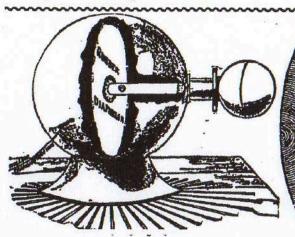
The Vitalized Disk—I examined one of bese and found it made partly of brass and artly of iron. When the brase side was rought against a magnet it did not attach self. But when the iron side was presentd it was attracted and held with considerale force. A large and powerful magnet was oncealed in one of the test mediums, the oles coming to the edge of the case, which ould firmly hold the disk against it and upport the weight attached to the disk. he iron parts of the disk were gilded to satch the brass, giving the appearance of

The "disintegrator" was in working orer. The small revolving wheel in the cenir was connected with and made to revolve y a clockwork device behind it. Concealed the disintegrator was a tubular iron servoir containing compressed air. The arious results shown were set in operation y the mechanical devices on the outside of ie instrument. The connection between ie air reservoir and the parts showing the anifestation of power was a minute tube sembling the various wires in the device. On this day I saw the shaft of the engine

ith the pulley on it, which was concealed the box over the hollow standard of the igine. I did not see this shaft on Dec. 20. he slow motion of the engine was produced gearing, which reduced the speed coming om the water motor. I also saw the round siting used on the pulleys connecting the ater motor with the engine.

The Musical Sphere, said to be set in moon by a musical note of a mouth harmonica. The sphere itself contained a collect spring the a daphragm brake similar to that derived in the globs motor. When it was spread to operate it by using a mouth harmonica die harmonica was connected with A -- Vitalized disk. B .-- Inner spoke with disk.

C.—Resonator. D.—Hollow pedestal. E.—Transmitting wire running to transmitter.

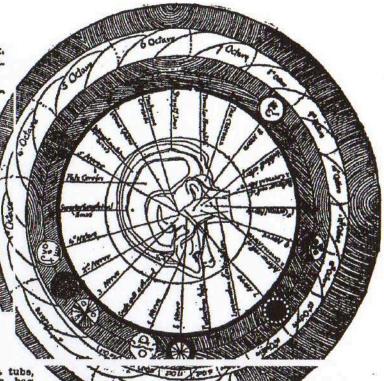


Keely's Last Transmitter, Showing HiddenRubber Diaphragm.

the sphere by an apparent wire. This "wire" was a tube. and was attached to the harmonica by a tube or bag of india rubber. Pressing this would produce pressure of air in the sphere sufficient to release the diaphragm brake, and the sphere would revolve. The sphere would be insulated by a glass plate to show there was no magnetism to operate it.

When it was desired to operate the sphere by a musical note made by Mr. Keely sitting in another room, the following was the

At the end of a fixed beach in the rear room on the second floor, on which the sphere was to be placed on glass, and directly opposite the axis of the sphere, there was a cavity in the wall from which had been removed an iron case, six inches in diameter, containing a disphragm six inches in diameter, hav-ing a rubber tube attached and leading to the back side of the disphragm. From the other side of the disphragm ran a quarter-inch rod, which, came out through the head of a nut atquarter-inen roo, which came out through the head of a nut attached to the iron case. The face of the iron box was flush with the wall and heatly covered with wall paper—not easily noticed. A groove was cut in the wall to receive a tube leading from the iron box to one of the other rooms. In the middle room this tube was concealed by the cilcloth covering on the floor. The whole was so arranged that a pressure of air behind the diaphragm in the box release the brake in the sphere, and the spring with the



MR. KEELY'S CRANIAL CHART.

clockwork in the sphere would cause it to revolve. Releasing the air pressure would stop it. I did not see exactly how the pressure was applied, but it probably was done by pressing a ball or diaphragm with the foot in the room where the operator sat. The windows or openings between the rooms gave the operator a view of the sphere. There was a black mark on the sphere, by which the number of revolutions could be told.

The desk over the stairs on the second floor had a false bottons, wants amorate a good place to sensed parts of the appa-J. J. SMITH. ratus not in use,

Director Keely Motor Company.

THE SECRET OF THE KEELY MOTOR.

(Copyright, 1899, by W. R. Hearst.)

O THE body of stockholders in the Keely Motor company; to the many who have believed that Mn Keely was maligned and persecuted; to his personal friends who loyally defended him up to the hour of his death and who also looked forward to the final completion of his work in accordance with his last wishes, the information embodied in the following statement will come as a most unwelcome surprise. But to none beyond the circle of his home can it be more bitter than was the revelation to those who discovered the facts, when they began to investigate the remains of the work left behind by Mr. Keely.

Mr. T. B. Kinraide just preceding the annual stockholders' meeting of the Keely Motor company, Dec. 20, 1898. Owing to the interest and reputations at stake, it was finally decided to give Mr. Keely the benefit of a possible doubt. The witnesses of what had been discovered knew how he had been continually hounded had been discovered knew how he had been continually hounded for exhibitions. The stock-hoomer as well as his victim; the distinguished scientist; the persistent curiosity seeker, and the ever-present reporter, for twenty-five years had made his life miscrable demanding or begging for one more chance to see his motor in motion. To fall to give the exhibitions often meant no funds for the expensive work he was engaged in; to give them, funds for the expensive work he was engaged in; to give them, as Mr. Keely frequently complained, was to waste most valuable time in unnecessarily setting up and graduating his machines, them taking them down again when he should have kept at his work of trying to perfect their parts. The exhibition itself was a small matter compared with this labor.

Perhaps Mr. Keely had yielded to the temptation to save, by one bold though unscrupious move, his time as well as the sources of his income. Had he accomplished this by rigging up an exhibition with some of his cast-off machines which would require but one "setting-up" and one "graduation," and which always would go at a moment's hotice?

It was decided that Mr. Keely was entitled to the benefit of the doubt. It was agreed unanimously that the information at hand did not warrant the destruction forever of Mr. Keely's

hand did not warrant the destruction forever of Mr. Keely's ceputation and honor, with the additional gorrow and the shame that would come to his widow and his friends, as well as the absolute disintegration of the Kealy Motor company. It was decided not to act hastily, to keep silent, and to ascertain beyond question or possibility of controversy the whole truth before taking action. In the meanwhile, it was deemed yies to remove as ioon as possible all traces of what had been found in the first awestigation. The evidence, however, has been preserved.

In addition to the three Boston witnesses, Mr. Kinralde, who had been selected by Mr. Keely to carry on his work, and two thers, a New York member of the board of directors was called n to view the facts. His written statement will be found in mother column, also a statement from Mr. Hill, who was at-

orney for Mrs. Keely.

Further and complete investigations have demonstrated that he whole truth, the lust word concerning the secret of the Keely not, should be told. It was agreed that the writer, one of the our witnesses, should write the report. This he has done at the arliest moment consistent with an accurate and impartial exarries moment consistent with an accurate and impartial ex-mination of everything connected with the matter. The result come to justify Mr. Keely's honest reply to an intimate friend in 'hiladelphia, who, within the year, said to him: "John, what do ou want for an epitaph?" Mr. Keely thought a moment, and, soking his questioner full in the face, replied:

"Keely, the greatest humbing of the nineteenth con-

THE REELY MOTOR.

On Feb. 24, 1872, in Philadelphia, John W. Keely assigned to ames S. Yarnall and four others an invention for a hydro-pneunatic-pulsating-vacuo engine and entered into an agreement with the assignees to form a joint stock company.

This was the first appearance before the public of the Keely totor. Since then it many times has changed its form, but ever in all its protean transformations did it lose the magical

E OF THE MONUM



MR. KEELY'S WORLD FAMOUS MIRACLES

With this official confession by the representatives of the Keely estate the world-famous "Keely motor" passes into history as the monumental fraud of the century. For twenty-five years John W. Keely astounded the most eminent scientists of Europe and America with his experiments—succeeded, in fact, in convincing the most skeptical investigators that he had found the great secret force of nature which controlled the solar universe, governed the planets in the heavens, and ruled the vegetable and animal kingdoms of this earth.

Mr. Keely from time to time welcomed doubting stockholders and threw open the door of his laboratory in Philadelphia to scientific experts. He handed them his motor; he begged them to test every portion of his machinery for magnetic attraction and to sound every wire for the faintest trace of an electric current. Then, before

the astonished eyes of the investigators, the miracles began.

The Tangung today, for the first time, is able to explain to the learned scientists and wondering stockholders, in minutest detail-

HOW Mr Keely produced rotation of a non-magnetic substance, such as a match hung on the end of a compass pivot.

HOW he produced a pull of hundreds of pounds on a disk which showed not the slightest trace of magnetism

or affinity to a magnet.

HOW he made his motor work when it was insulated on all sides by heavy plates of glass and carried from one part of the room to another, and even worked when held in the hands of a skeptic, Mr. Keely starting and stopping it

HOW Mr. Keely produced a pressure of 15,000 or more pounds to the square inch in his vibratory lift.
HOW Mr. Keely, standing beside the window gazing vacantly out over the city, played "Home, Sweet Home," on a harmonica until he struck a certain note which instantly set in motion the entire machinery of his work-

The explanation of Mr. Keely's miracles is a story of fraud so bold, so skillful, and so perfect that his death alone unveiled the mystery. Keely himself died last month with a lie upon his lips. "The full explanation of my great discovery you will find recorded among my papers," he whispered on his deathbed. But it was not so. The attorney for Mrs. Keely, the executors of the estate, and the directors of the company searched the laboratory in vain for the record of his discovery. What they found was the marvelously ingenious mechanism hidden in the walls and floors which had perpetuated Keely's audacious fraud for twenty-five years and put into his pockets half a million delires of his stockholders! million dollars of his stockholders' money.

Many guesses and many wise exposes have from time to time been published as the secret of the Keely motor. The discovery of concealed wires, brass tubes, and especially an iron globe in the laboratory, has afforded material for all sorts of guesses from electric currents to compressed air. But the real secret of the Keely motor has never until the moment been revealed.

Great "Keelv Ma

CONFESSION BY MRS. KERY

N a certain way the accompanying the N a certain way the accompanying engrand unmistakable, speaks for last, John W. Keely, the legal course for last, decease until the flunt adjustment of the fact and the Keely Motor comparated with Mr. Kinraide of the causes for M. Be it my duty to outline the reasons for the At the very outsit of my comection my attact to Mrs. Keely, whom I believe to account of any dishnessly in the ruptoset. nocent of any dishenesty in her husbands whole thing was case utially frauduled to concealment, and that I conceived it me from being imposed upon any further it I requested to be relieved from the capital able to her.

I was not reionsed, and in the two men ela I was not retensed, and in the two mery doubt I have hid him been sweptangery doubt I have held him been sweptanger to Boston is palpably fraudulent, administrated in the stock of the Kooly Moore companied, which if consummated, would me buyer parted with his money for a women atlan. Two different books freating of its results of view that it was hopest my point of view that it was honest and preparation at a great expense. Such the entail both financial loss and social rider prevented.

Then, ngain, under date of Jan. 18, 28 Board of Directors of the Keely Motor on own statement in a communication just a Frederick G. Dussoulus, counselor at lar in which he says:

"Appreciating the great interest page of the stockholders you represent, could rectors somewhat during this momentum

THE REELY MOTOR.

On Feb. 24, 1872, in Philadelphia, John W. Keely assigned to James S. Yarnall and four others an invention for a hydro-pneumatic-pulsating-vacuo ougine and entered into an agreement with the assignees to form a joint stock company.

This was the first appearance before the public of the Keely motor. Since then it many times has changed its form, but never in all its protean transformations did it loss the magical charm of a wonder worker which first made it famous, or did it betray the secret of its power. For over twenty-five years it worked miracles at Mr. Koely's command when funds ran low. As its famo spread and after the Twentioth street Philadelphia laboratory was erected, an endless procession of investigators, wise and unwise, came to see for themselves, for seeing is believing, and wells, and booking for Keely motor stock, which they always found. Among the number were scientists and learset professors, shrewd and successful business-men and financiers ministers, doctors, lawyers, wemen of wealth and position. He hind the closed doors of the laboratory they had seen the wender dissect doors of the incornitory they mad seen the wen-derful motor start into life when Keely touched a sither or played on his harmonica a bar of "Home, Sweet Home." They had tested the motor's strength. They had seen known laws of physics violated, suspended pieces of wood, non-magnetic, be-having like magnetized compass needies when brought under the influence of the machines, which ran with no explainable reason for going. They had seen iron balls swimming on water and various other phenomena which left them are struck and dumfounded

They went away satisfied that the music of the spheres could drive an engine or be made to do galley jelave work in the harness which Keely had all but perfected. His trium polar currents with their wonderful celestial outreach were indianutable facts. Only a few unimportant improvements in the magic har-

facts. Only a few unimportant improvements in the magic har-ness and all the machinery of the world could be driven by the costless power, a power which flowed in resistless strength from the depth of the infinite mind-aternal volition.

Money-what was money in the fact of this miracle? Hard earned savings, checks from the wealthy, drafts from the grate-ful in foreign countries poured in a steady stream into the hop-per of the motor company and disappeared as complutely as though Keely's disintegrator had taken their chord mass.

IN THE LABORATORY.

There was a grea similarity in the frequent exhibitions which Mr. Keely gave of his motor and the various phenomena he claimed to produce by means of his triune polar currents. By pecial invitation the spectators would meet at the Twentieth street laboratory on a day set by the inventor. If the guests were 27 special importance there would sometimes be an introductory exhibition, say the da previous, at which the dismantled ma-thines would be shown and the functions of the different parts explained. By the next day Mr. Keely would have the parts together again, "graduated" or "sensitized," and his motor ready for

The motor plant consisted, as Mr. Keely explained it, of: 1. The ransmitter. 2. The motor or engine. These were connected by a ransmitting wire. The transmitter was a hollow braze sphere or ball, resting in a heavy braze base. In the last transmitter this all had been reduced to about the size of an orange. In the sider transmitters it was some ten inches in diameter. Around he base of the transmitter projected, horizonially, a circle of teel rode, which vibrated and sounded like a tuning fork whom wangedby the fingers. This was the dominant scale of the intrument. The interior of the globe contained two or more hladmi plates and a group of brass resonating tubes, looking like bunch of empty brass gue extridges. This collection of brass ubes was called the shifting resonator. From one side of the lobe projected a small ball or knob called the graduating shift, which held the head of a long screw which passed into the center the globe and enabled the operator to shift the resonating whas headward or covered. ubes backward or forward.

This transmitter was the generator or awakener of the vibra-ory etheric force which ran the motor. It was an acoustic device imply. By twanging the proper rods in the dominant scale at he base of the transmitter, the various resonating tubes, 'phones nd Chiadni plates took up the vibrations, carrying the note up he musical scale with infinite rapidity, conserving, multiplying, distributions of the note up to the note u

any any noors which had perpetuated Acety's audactous traud for twenty-five years and put into his pockets half a million dollars of his stockholders' money.

Many guesses and many wise exposes have from time to time been published as the secret of the Keely motor. The discovery of concealed wires, brass tubes, and especially an iron globe in the laboratory, has afforded material for all sorts of guesses from electric currents to compressed air. But the real secret of the Keely motor has never until the moment been revealed.

Mr. Keely would explain that this motion could be kept up until the machine wore out-a costless, inexpensive power,

The miracle was accomplished before the eyes of the distinguished guests. The day before they had examined the various parts of the engine; they had seen the spherical transmitter apart and had admired the wonderful collection of Chiadni plates, resonutors, graduated adjustment screw, and other parapher-nalla that came out of it, had looked at the wire, even clipped it, and been given a piece by Mr. Keely. It was solid, usually of German silver, about the size of a knitting needle. After the motor was in motion they were allowed to test for electricity or magnetism; not a trace. Without a doubt, Mr. Keely had discovered a new ferce.

So has thought many a stockholder who now deserves the honest sympathy of the reader, for there will be no Keely motor stock worth thousands of deliars per share. However, the mem-ory of the Keely Motor company is likely to outlast the present generation.

THE DISCOVERY OF FRAUD.

When Mr. T. Burton Kinraide took charge of Mr. Keely's laboratory, one of the first discoveries was how Mr. Keely did this particular experiment just described. He could vary the initial performance in a dozen ways, but the principle was always the

In taking down the posts which held the stationary axis on which revolved the hub of the motor, with its arms, the first fraud was discovered. This framework had no apparent connection with the engine, beyond serving as a support for the stationary

shaft or axis which passed through the hub of the motor.

A false box, a hollow post, and a hole extending down through
the floor ised to a careful investigation. Under the floor, between
it and the ceiling of an unused storeroom beneath, always kept locked, was found running through the ilmbers supporting the floor an iron shaft with a small pulley on it. The pulley and the hole is the floor were directly under the hollow post of the en-

The iron shaft was followed to the side wall. At its termina-tion, was another pulley. Directly beneath this, but just above the ground floor of the room, another iron shaft came through the wall, also for the room, another iron shaft came through the wall, also with a pulley on it. A small, well-worn belt was found, which fitted over and exactly connected these two pulleys. Going into the small rear room, mostly filled with old junk and the floor of which was rulesed considerably above that of the middle room, there was discovered beneath a box and an olletoth spread out on the floor a trap door. This trap opened over the shaft, which came through the wall. Here it was found that the shaft consacted with a mall water content of the shaft and the shaft consacted with a mall water content of the shaft and the shaft connected with a small water motor of peculiar construction, the water being supplied by a lead pipe coming in from the outside of the building. Extending from the water motor was a small hollow rubber tube. It was found that by attaching a rubber build to this ube the water motor could be started in motion by pressing the tube the water motor could be started in motion by pressing the builb and would stop when the pressure was released. This water motor is now in the laboratory of Mr. Kinraide, in Roston. The subber tubing was found also to extend between the walls and ceiling from the water motor to a point under the Keely motor, then up through the autitionary post of the engine, and to terminate in the binding bost or seeket into which the end of the wire was inserted which connected the motor with the transmitter. Further investigation revealed the fact that there were in the laboratory different sold for transmitting wire, exactly allied in the laboratory different sets of transmitting wire, exactly allke in external appearance, but one was hollow, the other solid, both, as mentioned, about the size of a knitting needle, and with connecting tips that made itimpossible to tell which was hollow and which solid, except by cutting or trying to blow through them.

A DUPLICATE TRANSMITTER.

This was one of Mr. Keely's favorite exhibitions. No scientist has ever explained it. Mr. Keely has. By bringing the compass within the influence of the "enharmonic" current of the triple within the influence of the "ennarmonic current of the triple flow from his transmitter the phenomena of rotation would arise from the harmonic interaction of the dominant and enharmonic elements of the flow, or of those vibrations which bear the proportions to each other of 33 1-3:100.

To bring the compare within the influence of the enharmonic aspect of the pear stream Mr. Keely generally used what he called a test-medium. One form of this was a brass tube about six inches to the standard four in dismoter, and supported on a heavy brass base containing a brisiling row of steel pine jutting out from the base containing a bristing for of seed pine justing out from the base of the transmitter. The body of the test medium was filled with the usual assemblage of small resonating tubes, the ends being flush with the semblage of small resonating tudes, the ends heing bush with the top of the outside case, and open, except the central collection, which were supposed to be filled with sensitized powder. These were arranged length wise around the inside of a brass tube or box the top of which was scaled by a brags cap to prevent the less of the cop or minimum box without the cap and containing the empty cartridges fully explained the arrangement of the concealed small tubes. Attaching his transmitting wire to the base of this test madium, ingeling a compass on the brass cap, covering the central collection of tubes in the test medium, as described, then finding the proper note on the dominant, scale of the transmitter, away would go the compass needle, rotating so fast the eye could not follow it.

THE TEST MEDIUM.

a ussection of the test medium shows that the central tubular box, on the cap of which the compass was placed, did not contain a collection of smaller tubes, as shown in the duplicate offered to consection of similaric tubes, as snown in the duplicate dierror to investigations for examination. What'll did contain was an inner brass tube or large cartridge with a brass to. This tube was lowered by a long brass hood. The brass base of the test medium was hollow and contained a small air receptable connecting with was notion and contained a small air receptacie connecting with the aperture or binding bost into which the transmitting wire was inserted. The top of this air chamber was covered by a rubber diaphragm. The inner tube mentioned contained a clockwork diappragm. The inner tipe mentioned contained a clockwork mechanism of a type common in some French lumps to run a small fan, to force a draft into the flame. This was rin by a spring and wound up at the bottom by an ordinary key. On the upper face of this arrangement was a this but powerful steel magnet hung on its center, and which the clockwork, when wound, caused to provide a Whan the wachestic was the second of the control of the co to revolve. When this mechanism was in place in the test medium, the revolving magnet came just below the compass placed on the the revolving magnet came just below the compass piaced on the top of the test medium. The long brass hood fitted loosely over the mechanism containing the electwork, the top of the bood resing on the magnet and acting as a brake to keep it from moving when the clockwork was wound and in place. The bottom of the hood rested on the rubber displacing. Inflating the sir chamber and the statement of the contract of hood restee on the reducer campaingen. Innating the air chamber and raising the disphragm would raise the hood. Mr. Keely would force air through the hollow wire from his transmitter and raise the rubber disphragm of the concealed air chamber in the raise the rusper dispurgation of the confessed air chamber in the same way that he get his water motor in motion. As soon as the magnet was released it began to revolve—the clockwork running it being wound—and the steel magnetized needle of the compars over it followed in sympathy—a genuine instance of sympathetic

THE VITALIZED DISK.

a moston gentleman, whom the Philadelphia Inquirer described as an "shinent scientist," gave to that paper the following description, which is quite accurate, of Mr. Keely's vitalized or isnessitized disks, used on his motor: "I have on my table a paper weight, a disk said to be composed of an alloy of three metals. It looks like steel, measures two and one-half inches by three-

prevented.

Then, ngain, under date of Jan. III. B Board of Directors of the Keely Moter of own statement in a communication for the Frederick G. Dussonlas, counseloration in which he says;

"Appreciating the great interesting of the slockholders you represent could rectors somewhat during this momentum of the enterprise by inducing your cleans treasury warrants which we are sellers and necessary expense of the company expenses, secretary's salary, and so furth clate any result you may obtain."

The above also makes it imperate to fraud practiced by Mr. Keely shoulder I have therefore countenanced the pe matter by Mr. Bridge. It is a case the must in importance trunscend the confe

At Mr. Keely's decease the publics es it had been in life. Many moured hi right. God-fearing man, who had offeri science; not a few looker upon him as at before he was to lead a parient kented hoped-for promised land.

But after his death the pext queto waited an answer was, "Did Mr. Red) him?" or had it forever vanished, taking many, many stockhold re? Previous to pentedly asserted that all of his secretion derful experiments were hestorned, hades ito t could go on uninterruptedly.

He had given tantalizing glimpsessip of the officials of the company. On his friend, Mr. Khraide, to take up his por-tion. Such things as these naturally his ence of some valuable papers. A week cess to his papers was secured for the bundle was unrolled and infinitely sup-peared. Fragmentary MSS, in the same letters, proof sheets of matter attacker at halfer field Moore's book. "Keely and Riches abundance, but no revelation. It beam hope was that some man versed in medical as practically, might take the machines careful inductive reasoning finally comes exerted toward recuing the harmones Motor company in the matter of places

It was arranged between the Press. as factionally and myself that on Dec. 9, 18 slockholders, giving my yiews, as far, it best course to pursue. Shortly aftends fining, the Indonatory, Mr. Kinrafe down of fraud. Till that moment our consistent and honor was as firm as any of his fire thousands. Hero was a new element to affecting, however, only one machine st we knew, any other of the numerous a

Why this first evidence was not store can urther investigations have shown, and redou

Boston, Mass., Jun. 26, 1880

the musical scale with infinite rapidity, conserving, multiplying, and intensifying it, reducing the wave lengths of the vibrations, until they became an rapid or line us to be synchronous with the term of the state of the magnetic currents flowing toward the morth of the state of the magnetic currents flowing toward the next of the state of this stream was of a triple nature, the result of symposium that the state of the state of the solar system, and constituted an angless observed circuit. This vibratory impulse was carried from the transmitter by the where to the motor, where, acting on the polar and depolar disks, it set the motor in motion, as will be explained later.

THE MOTOR.

THE MOTUR.

The motor tests consisted or a neavy iron hoops or band, firmly supported on a bed plate. Within this hoop and revolving freely on a stationary axis, supported by posts at each end, was a double-walled hub, or drum, from which elpht spokes projected toward the hoop. On the end of each spoke was a vitalized disk. On the cuter side of the hoop were nine series of resonators and an equal number of vitalized disks on the inner side of the hoop. By having one more disk on the hoop than there were disks on the spokes a dead center was avoided. A pulley attached to the revolving hub served as a means to transmit the power by a belt.

AN EXHIBITION.

The company having duly assembled. Mr. Keely would point out, in place, the parts examined the day previous, and before commencing the exhibition would explain the working of his motor somewhat as follows:

commencing the exhibition would explain the working of his motor somewhat as rollows:

"In the conception of any machine herelofere constructed the medium for inducing a neutral centre has never been found. If it had, the difficulties of perpetual motion seekers would not a seeker would have become an established diversified and their problem would have become an established diversified a device to cause it to run for centuries. I did not reak to attain perpetual motion; but a circuit is formed that actually has a neutral center which is in a condition to be rivified by my vibratory ether or polar stream, and while so fed is an independent motor, as you will be."

Thereupon Mr. Keely would step to his transmitter, finger over the dominant scale—the steel pins running around the base of the transmitter—meanwhile turning the knob on the side of the transmitter to get the correct adjustment of the resonator within, and would soon strike the right note. Then the harmonic resonant impulse, which was transmitted along the wire to the motor from the tra smitter, would awaken in the sensitized dists of the motor, with reference to he "outreach" of the initial of dominant current of the polar stream, alternating conditions of "sympathetic negative attraction" and "sympathetic positive propulsion." As a necessary consequence the spokes of the motor would begin to revolve within the rim of the machine, and

A DUPLICATE TRANSMITTER.

A duplicate, an exact copy in external appearance, was found of the latest perfected transmitter, "the gradual perfection of years of patient study and improvement." The duplicate transmitter exactly resembled its mate, but upon opening it the Chiadni plates and the resonators were lacking, instead was a Chiadni plates and the resonators were lacking. Instead was a rubber disphragm stretched across the sphere, dividing it vertically into two air-tight compartments. The long scrow, with its head in the little bulb on the side of the sphere, and which in the exhibition transmitter regulated the position of the resonator, in the duplicate transmitter worked in a fine threach through a small brass plate clamped in the center of the disphragm. By turning the knob the disphragm could be thrown backward or forward. By connecting the motor and the real transmitter by means of the hollow wire, then turning the knob in the proper direction, the disphragm would be thrown forward, the sir forced through the wire and down through its various connections to the water motor, releasing an automatic out-off and setting the water motor in motion.

water motor in motion.

A more careful investigation of the Keely motor showed that the stationary axis was hollow. Within this hollow shaft, which was only a dummy, the real sixle revolved, over one and of which passed the belt which ran down through the hollow post to the pulley underneath on the end of the iron shaft described. This inner axis, run by the belt, carried the hub of the motor and caused the same to revolve when it revolved.

How simple! Yet this device, has been too much for some of the best mechanical experts in the country, to say nothing of the active of coop-mouthed laymen.

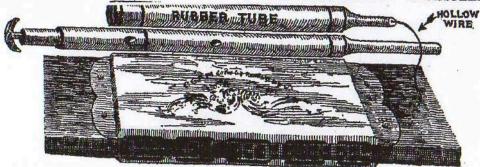
the cost mechanical experts in the country, to say nothing of the crowd of open-mouthed layamen.

Mr. Koely would work of his philosophy, acrew up his trans-mitter a little, and while the air was finding its way to the water motor he would find the proper chord. Then, prestol away went the ungine, run by the "sympathetic negative attraction of the triume polar atream."

In his operating rooms the remnants of rubber tubes between the floor and walls, in various places, and also receptacies for rubber bulbs told how he could do the receptacles for rubber bulbs told haw he could do the trick from various locations by pressing his foot on a rubber bulb conceated under the carpet or in some out-of-the-way place. He often would take a harmonica into the adjoining front roem, and, locking through the conscioning window, play "Home. Sweet Home." When he struck the right chord away would no the motor. He would then stop and start it at will, as he played.

This was particularly effective. One at least of the larger and discarded transmitters is still intact with the rubber disphragm, and works to perfection in making the compass needle revolve.

THE FAMOUS TRICK HARMONICA WHICH PERFORMED "MIRACLES."

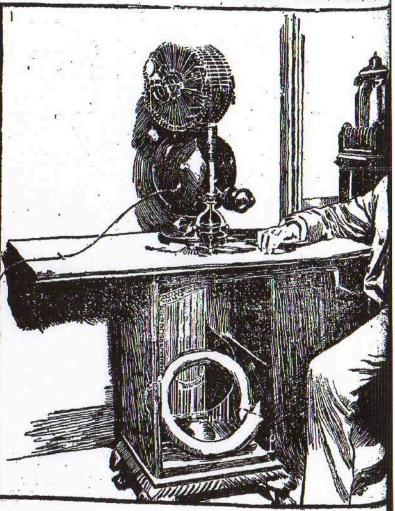


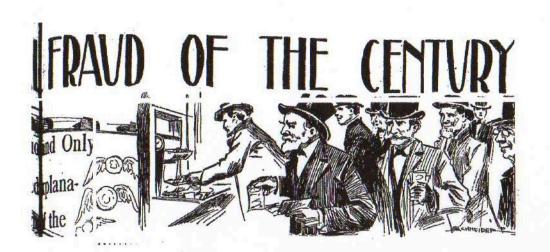
two and one-nail inches by three-

Boston, Mass., Jun. 26, 1809.

PHOTOGRAPH OF THE LATE JOHN W. KEEL

(Copyright, C. C. Coiller, Philodelphia, Pa)



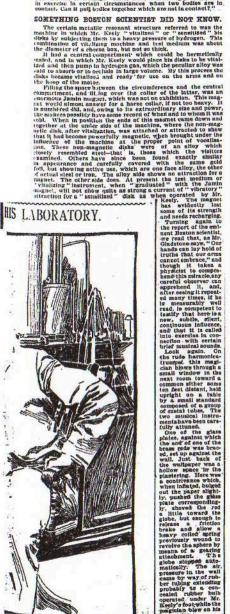


counters of an Inch, weights about a pound, is inclosed in brass cint; and exhibits no magnetic power. I am too, that, shut up in a plass thamber and connected with the wire that seemed to after: the compare, it absorbed some seven plats of hydrogen and the more than the compare, it absorbed some seven plats of hydrogen and the more than the compare and the more seven plats of hydrogen and the more seven plats of hydrogen and the more than the seemed to flow that subite influence which seemed to flow that subite influence which the needle of the compares obeyed.

"Whatever may be thought of all this, it is a fact that the disk that "visited" in its oftonic or molecular construction, adheren the "visited" in the point or of molecular construction, adheren by magnetic attraction, and also supports a weight hung thereby the disk of the will the attraction will be the present of the plants of the present of the

SOMETHING BOSTON SCIENTIST DID NOT KNOW.

HIS LABORATORY.



composed of a group of metal tubes. The

or a tubes. The way a musical instru-ments have been care-culy attured.

One of the glass places, against which the end of one of the brass roke was brass, each was brass roke was brass. The blass had been so the walkpaper was a hollow space in the plastering. Here was a contrivence which, and a contrivence which, and the plastering. attachment. The sipole students of the matculy. The sirrorssure in the wall came by way of rubber tubing extending a concealed rubber to concealed rubber of the match of the sipole of



EXACTLY HOW THE "MOTOR" WAS WORKED.

"In taking down the posts which held the stationary axis on which revolved the hub of the motor, with its arms, the first fraud was discovered. This framework had no apparent connection with the engine, beyond serving

arms, the first fraud was discovered. This framework had no apparent connection with the engine, beyond serving as a support for the stationary shaft or axis which passed through the hub of the motor.

"A false box, a hollow post, and a noie extending down through the floor led to a careful investigation. Under the floor, between it and the ceiling of an unused store room beneath, and always kept locked, was found running through the timbers supporting the floor an iron shaft with a small pulley on it. The pulley and the hole in the floor were directly under the hollow post of the engine.

"The iron shaft was followed to the side wall. At its termination was another pulley. Directly beneath this, but just above the ground floor of the room, another iron shaft came through the wall, also with a pulley on it. A small, well-worn belt was found, which fitted over and exactly connected these two pulleys. Going into the small rear room, mostly filled with old junk and the door of which was raised considerably above that of the middle room, there was discovered beneath a box and an oilcloth spread out on the floor a trap door. This trap opened over the shaft, which came through the wall. Here it was found that the shaft connected with a small water motor of peculiar construction, the water being supplied by a lead pipe coming in from the outside of the building. Extending from this water motor was a small rubber tube. It was found that by attaching a rubber bulb to this tube the water motor could be started by pressing the bulb and would stop when the pressure was released. This water motor is now in the laboratory of Mr. Kinraide, in Boston. The rubber tubing was found also to extend between the walls and ceiling from the water motor to a point under the Keely motor, then up through the stationary post of the engine and to terminate in the binding post or socket into which the end of the wire was inserted which connected the motor with the transmitter. Further investigation revealed the fact that there were in the la

A DUPLICATE TRANSMITTER.

perfection of years of patient study and improvement.' The duplicate transmitter exactly resembled its mate, but upon opening it the Chladni plates and the resonators were lacking. Instead was a rubber diaphragm stretched across the sphere, dividing it vertically into two airtight compartments. The long screw, with its head in the little bulb on the side of the sphere, and which in the exhibition transmitter regulated the position of the resonator, in the duplicate transmitter worked in a fine thread through a small brass plate clamped in the center of the diaphragm. By turning the knob the diaphragm could be thrown backward or forward. By connecting the motor and the real transmitter by means of the hollow wire, then turning the knob in the proper direction, the diaphragm would be thrown forward, the air forced through the wire and down through its various connections to the water motor, releasing an automatic cutoff and setting the water motor in motion. automatic cutoff and setting the water motor in motion.

"A more careful investigation of the real Keely motor showed that the stationary axis was hollow. Within this hollow shaft, which was only a dummy, the real axle revolved, over one end of which passed the belt which ran down through the hollow post to the pulley underneath on the end of the iron shaft described. This inner axle, run by the belt, carried the hub of the motor and caused the same to revolve when it revolved.

"How simple! Yet this device has been too much for some of the best mechanical experts in the country, to

say nothing of the crowd of open-mouthed laymen.

"Mr. Keely would work off his philosophy, screw up his transmitter a little, and while the air was finding its way to the water motor he would find the proper chord. Then, presto, away went the engine, run by the 'sympathetic negative attraction of the triune polar stream."

tion to the Keely mania, and endeavored, we think, with considerable success, to check, if it could not wholly prevent, such obvious swindling of the public. We pointed out that all of the results obtained by Keely could be duplicated by using compressed air in suitable apparatus, and in 1884, in the case of the Keely gun, conducted experiments which proved that in this case, at least, we were correct.

Keely had many different names for his newly dis-covered force, and just at the time of the famous gun experiments at Sandy Hook, he was pleased to call it "etheric vapor." Representatives of this journal were present on the occasion, and the accompanying illustrations were published in the SCIENTIFIC AMERICAN THE KEELY MOTOR FRAUD.

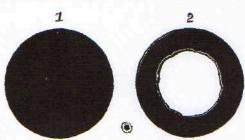
Ever since the death of John W. Keely, the fantastical collection of apparatus with which he puzzled the point of the delay to send up its stock from the call collection of apparatus with which he puzzled the properties on the deliar to fifteen cents, and swell its own bank account proportionately.

connected by a wire, C (so said Keely; the wire was actually another tube) to a second magazine, B. The supply from the small to the large magazine and from the lrom the small to the large inagetine and from the large magazine to the gun was controlled by stop valves, as shown in the cut. These magazines, according to Mr. Keely, had been charged with "interatomic ether," which had been evolved by a "generator" set up in Mr. Keely's Philadelphia workshop.

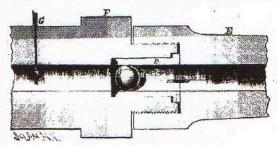
In loading the gun the gas check was first placed in position and the muzzle serewed up tightly; then the ball was introduced at the muzzle and raisined home. Next the stop-cock was opened to admit the "etheric vapor" to the breech, and, after waiting a few seconds, the "vibrator," H, was struck with a wooden mallet, and the charge exploded, driving the bullet at a target 500 yards from the gun. Nineteen rounds were fired, and then a conical steel bullet was driven through 4 inches of pine plank placed a few feet from the gun. The noise of discharge closely resembled that caused by



public, and incidentally diverted a golden stream into



GAS CHECKS BEFORE AND AFTER DISCHARGE OF GUN.



LONGITUDINAL SECTION AT BREECH OF OUN.

his private purse, has been as jenlously guarded as ever it was in his lifetime. Recently the motor was removed, and the laboratory (Heaven save the mark!) Keely phenomena), proceeded to explore the premises in search of evidences of fraud.

The result proves not merely that the motor was a fraud, but that it was a fraud, as we pointed out fifteen years ago in the columns of this journal, of the very simplest and most transparent kind: in fact, the pre- in thickness, while the third disk, which was placed sumption is strong that this most colossal humbug of next to the pressure chamber, was of soft rubber pack-

the century depended for its success upfruitful theme of the bogus company promoter-compressed air. In the first place, hidden be. neath the floor of the building was found a large and mas sive metal sphere, whose weight is given as three tons. and whose bursting strength under Dressure is stated to be so many tons to the square inch, Apparently at one time connected with this was found, hidden in the brick wall, a quantity of small brass tubing, of just the si and strength

The "vaporic" gun used on that occasion (it was nothing more or less than an air-gun) had a spherical knob secured to the breech, from which projected a in which for a quarter of a century he had conducted his so-called experiments was vacated. Whereupon eter, the bore 1½ in. and the total length was 3½ feet.

Mr. Clarence B. Moore, whose mother had been the Just forward of the trunnion, at the point, F, the muzmost generous of Keely's many victims, rented the zle unscrewed, this construction being adopted to perpremises, and calling to his assistance several gentle—mit the placing of a gas check, b, in position. A sleeve, men of high standing in the scientific world (some of c, with a bore equal to that of the gun, was fitted in an whom, by the way, had been baffled witnesses of the annular recess in the forward part of the breech, F. annular recess in the forward part of the breech, F.

It will be seen that when the muzzle was screwed

the wind descent that when the interfer was account home, the sleeve was forced in until it held the gas check firmly in place. The latter consisted of three disks, having a common diameter of 1½ inches. The two front disks were of common hard rubber, $\frac{1}{12}$ inch in thickness, while the third disk, which was placed

a common shotgan when loose powder having no ram-ming upon it is exploded. A small cloud of white vapor, which immediately disappeared, followed the discharge. The velocities of three consecutive shots were 482, 493, 523 feet per second. "The gun was then un-serewed," says the account of the proceedings, "the valve at the magazine was opened, and visitors were permitted to examine the 'interatomic ether' as it issued from the pipe. It had but a small trace of odor, no taste, and had no effect upon the lungs." Precisely; for there is not a question in the world but what the "interatomic ether" as it issued from the pipe was the common air

at atmospheric pressure. We declared at the time that the magazine, A and B, had been charged with compressed air at many thousand pounds pressure, and that when the stopcock was opened, the air, owing to its high pressure.

passed rapidly to the breech. behind the gas check, where it developed sufficient pressure to burst the check and expel the ball.

The tapping on the "reson-ator," H, had nothing whatever to do with the discharge, and was merely one of the clarlatan "passes of the ward" by which this accomplished rogue bewildered his audi-

To prove the tact to his sat-isfaction, the representative of the SCHE-TIFIC AMERI-CAN requested Keely to allow him to handle the wooden mallet (his purpose being to delay the tap-

TEST OF THE REELY "VAPORIC" GUN AT SANDY HOOK, SEPTEMBER, 1884.

to match the strength of the steel reservoir, and corresponding to the tubing (see cut) used by Keely in his various public and private exhibitions. Underneath the upper floor of the house was found a false ceiling, well calculated to hide the necessary tubes for conveying the compressed air to the different air mo-tors with which he produced his results; while a numher of trap-doors were found scattered over the floor of this stage, from which, for a quarter of a century, this prince of humburs played his part!

Many of our older readers will remember that from
the very first this journal was caphatic in its opposi-

ing, r_0 of an inch thick. The disks are shown in full size in Figs. 1 and 2, the former figure representing the disk before discharge, and the latter after discharge. It will be noticed that the broken disk shows clearly the imprint made by the end of the sleeve. of the gun was 11's inches, and a spherical lead bullet, of the gun was 1°_{B} inches, and a spherical lead bullet, η_{i} was used. A copper tube, D_{i} , f_{B} of an inch in external diameter and 1°_{B} of an inch internal diameter, a full size cross section of which is shown between cuts 1 and 2, led the breech of the gun to the magazine, A_{i} , which was made of wrought iron and was 3°_{B} inches external diameter by 4°_{B} feet long. Another tube was

ping until after the discharge). It is needless to say that Keely refused.

Soon after Keely's gun experiments the editor of this journal conducted experiments in the same direction in New York, and an experimental gun was made of seamless drawn brass pipe of 1 inch bore and 2 feet in length, and set vertically under a skylight shaft several stories in height. A union joint was screwed to the bottom of the pipe, with a pipe connecting to a coil of about 100 feet of 114 inch pipe, placed beneath

the gun.
A further connection was made with a hydraulic

testing pump and high pressure gage. In the union joint were placed two disks of hard rubber, each about is of an inch in thickness, and above the disks a lead ball, I inch in diameter, was placed. On the railing of the next story above was laid a target of five tiers of 114 inch plank, directly over the range of the gun. The whole pipe being full of air at atmospheric pressure, the pump was put in operation, water being forced into the lower end of the pipe reservoir. This forced the air up through the pipe line and compressed it under the hard rubber disks. When a pressure of 1,500 pounds per square inch was reached, the disks ruptured and the gun was discharged.

The bullet passed through the 614 inches of pine planks, making a clean cut through the first planks and badly shattering and displacing the last plank of the target, then struck and splintered a beam under the roof and rebounded to the floor. This was repeated several times, the disks bursting at between 1,300 and 1,500 pounds and showing the great power of compressed air in the discharge of the projectiles. The prestidigitator part of Keely's exceedingly small feed pipe to the chamber behind the disks and bullet, and his bogus tapping of the resonator, it is needless to say were not included in our experiment.

In conclusion we would remind our readers that the death of this prince of rogues does not imply that the type is extinct; and that "resonators," "vibrators," "etheric vapors," and others of that ilk, still walk the earth dressed in the ever-varying garb with which such human sharks as Keely are still seeking to catch the unwary.

